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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,077	11/22/2005	Ulrich J. Pfeiffer	PFEIFFER ET AL -4 PCT	2638
25889	7590	09/21/2007		
WILLIAM COLLARD COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			EXAMINER VU, QUYNH-NHU HOANG	
			ART UNIT 3763	PAPER NUMBER
			MAIL DATE 09/21/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/540,077	Applicant(s) PFEIFFER ET AL.	
	Examiner Quynh-Nhu H. Vu	Art Unit 3763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-11 and 14-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-11 and 14-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Response to Amendment

The Amendment filed on 08/15/07 has been entered. The Amendment with respect to claims 1, 3-11, 14-16 have been considered but are moot in view of the new ground(s) of rejection.

Claims 1, 3-11, 14-16 are present for examination.

Claims 2 and 12-13 are cancelled.

Oath/Declaration

Receipt is acknowledged of papers filed under 35 U.S.C. 119 (a)-(d) based on an application filed on 11/22/05. Applicant has not complied with the requirements of 37 CFR 1.63(c), since the oath, declaration or application data sheet does not acknowledge the filing of any foreign application. A new oath, declaration or application data sheet is required in the body of which the present application should be identified by application number and filing date.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-6 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al. (US 5,380,276) in view of Sima'n (US 5,968,009).

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Miller discloses a catheter having a catheter body 10, the interior of which form a first catheter lumen 6 which can be served to accommodate a guide wire, having at least one partition disposed in the interior, which divides of at least one further catheter lumen 5 in the interior, wherein the catheter body 10 has a tubular outer wall, and the further catheter lumen 5 is disposed in such a manner that it has a wall section that is part of the tubular outer wall; the partition 8 runs in arc shaped over at least one section (claim 3); the arc-shaped partition 8 has a convex side that faces the first catheter lumen 6, and a concave side that faces the further catheter lumen 5 (claim 4); the cross-sectional area of the first catheter lumen has a round sickle shaped (claim 5); the cross-sectional area of the further catheter lumen is round (claim 6); the catheter body is made from polyurethane (claims 14-15).

Miller does not specifically disclose the quotient of the cross-sectional area of the first catheter lumen F1 and the cross-sectional area of the further catheter lumen F2 is greater than the square of the quotients of the width of the first catheter lumen D1 and the width of the further catheter lumen D2, in the other words, $F1/F2 > (D1/D2)^2$.

Sima'n discloses, Figs. 1-4, the increased thickness in lumen wall along one of the lumen portion provides increased kink resistance (see abstract or col. 2, line 64-col. 3, line 13). Therefore, given teaching of Sima'n will meet the formula that applicant discloses $F1/F2 > (D1/D2)^2$.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the device of Miller with varying the thickness of wall, as taught by Sima'n, for the benefit of increasing kink resistance.

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Claims 1, 3, 6-8, 11, 14-15 are alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over Currier et al. (US 2004/0015138) in view of Sima'n (US 5,968,009).

Currier discloses in Fig. 7 a catheter having a catheter body, the interior of which form a first catheter lumen 96, having at least one partition disposed in the interior, which divides off at least one further catheter lumen (94 or 98) in the interior, wherein the catheter body 88 has a tubular outer wall and the cross-sectional area of the further catheter lumen 94 or 98 is smaller than the cross-sectional area of the first catheter lumen 96, and the further catheter lumen 94, 98 is disposed in such a manner that it has wall section that is part of the tubular outer wall. The partition runs in arc shape over at least one section (claim 3); the cross-sectional area of the further catheter lumen 94 or 98 is round (claim 6); a temperature sensor disposed in the vicinity of the catheter tip (para [0061]) (claims 7-8); an optical fiber sensor 102 is disposed in the further catheter lumen 98 (para [0058] and [0061]) (claim 11); the catheter body is made of polyurethane plastic (para [0054]) (claims 14-15).

Currie does not specifically disclose the quotient of the cross-sectional area of the first catheter lumen F1 and the cross-sectional area of the further catheter lumen F2 is greater than the square of the quotients of the width of the first catheter lumen D1 and the width of the further catheter lumen D2, in the other words, $F1/F2 > (D1/D2)^2$.

Sima'n discloses, Figs. 1-4, the increased thickness in lumen wall along one of the lumen portion provides increased kink resistance (see abstract or col. 2, line 64-col. 3, line 13). Therefore, given teaching of Sima'n will meet the formula that applicant discloses $F1/F2 > (D1/D2)^2$.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the device of Currie with varying the thickness of wall, as taught by Sima'n, for the benefit of increasing kink resistance.

Claims 9-10, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (US 5,380,276) or Currier et al. (US 2004/0015138) in view of Sima'n (US 5,968,009)

Regarding claims 9-10, Miller or Currier in view of Sima'n discloses the claimed invention except for the cross-sectional area of the temperature sensor fills the cross-sectional area of the further catheter lumen by at least four-fifths; wherein the cross sectional area of the temperature sensor fills the cross sectional area of the further catheter lumen completely. It would have been an obvious matter of design choice to make the size as forth-fifth or the temperature sensor filled in completely of cross sectional area of the catheter lumen, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art.

Regarding claims 16, Miller or Currier in view of Sima'n disclose the claimed invention except the guide wire has a diameter that amounts to 65% to 95% of the distance between the partition and the outer wall. It would have been obvious to one of ordinary skill in the art at the time the invention was made the diameter ranges from 65% to 95%, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quynh-Nhu H. Vu whose telephone number is 571-272-3228. The examiner can normally be reached on 6:00 am to 3:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nicholas Lucchesi can be reached on 571-272-4977. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

QNV


LOAN H. THANH
PRIMARY EXAMINER